



U.S. Department
of Transportation
**Federal Highway
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

Refer to: HVH-1

Mr. William Caton
The Secretary
Federal Communications Commission
Washington, D.C. 20554

FEB - 3 1995

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Re: Enhanced 911 Emergency Calling

CC Docket No. 94-102

DOCKET FILE COPY ORIGINAL

FEB - 6 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Mr. Caton:

Since 1991, the Federal Highway Administration (FHWA) has played a key role in researching and testing technologies and services associated with the National Intelligent Transportation Systems (ITS) Program. The goal of ITS is to apply advanced technology to improve travel and safety on our Nation's roadway system. One of the FHWA's critical areas of interest is the use of advanced technology to improve responsiveness to emergency or non-emergency (e.g., vehicle breakdowns) incidents.

We have reviewed the Commission's Notice of Proposed Rulemaking regarding the proposal to ensure compatibility of enhanced 911 services with private branch exchanges, other private dispersed telephone services, and wireless services. The enclosed comments relate to the FHWA's strong support of the proposed rulemaking changes.

Should you have any questions regarding this submittal, please contact Ms. Beverly Russell at 202-366-2202 or Mr. Frank Mammano at 703-285-2405.

Sincerely yours,

Christine Johnson
Director, Joint Program Office for
Intelligent Transportation Systems

Enclosure

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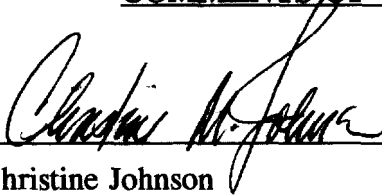
In the Matter of:

Enhanced 911 Emergency Calling

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CC Docket No. 94-102

COMMENTS OF THE FEDERAL HIGHWAY ADMINISTRATION



Christine Johnson
Director, Joint Program Office for
Intelligent Transportation Systems

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Enhanced 911 Emergency Calling

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COMMENTS OF THE FEDERAL HIGHWAY ADMINISTRATION

1. Background

On November 2, 1994, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking (NPRM) on *Enhanced 911 Emergency Calling*.¹ The NPRM proposed to require that private branch exchanges (i.e., phone systems that are generally internal to an organization and that require users to dial "9" for an outside line) have the ability to automatically provide a caller's number and location to public safety answering points (PSAPs), permit callers to obtain access to a PSAP by dialing 911 without having to dial "9" or another access code, and have the capability to alert and provide calling information to an emergency attendant at the location serviced by a private branch exchange.

The NPRM also proposes that commercial mobile radio services (or wireless telephones) that provide, or are capable of providing, real time voice services include features that will make enhanced 911 services available to mobile radio callers. Enhanced services include such features as Station Number Identification, Automatic Location Information, and Selecting Routing. The NPRM proposes that customers of mobile radio services be able to (1) obtain access to emergency services by dialing 911 without having to dial additional digits, (2) place 911 calls without meeting any mobile radio service user validation requirements, and (3) have their calls placed at the beginning of any queue of calls awaiting availability of radio or network considerations. The comment period ended January 9, 1995.

The Interagency Committee of Search and Rescue (ICSAR), which is made up of seven Federal agencies including the United States Coast Guard, submitted comments dated January 6, 1995. The ICSAR supported the FCC's NPRM noting that "distress alerting and locating via mobile radio services...offers great potential in easing the burden and risk on search and rescue (SAR) forces as well as the potential for saving many lives providing that identification and sufficient location information is available to SAR." The comments below reflect the Federal Highway Administration's support of the ICSAR's comments specifically and the FCC's NPRM generally.

¹59 Fed. Reg. 54,878 (November 2, 1994).

2. The National Intelligent Transportation Systems Program

Continued expansion of our Nation's highway system is no longer an adequate option for reducing traffic congestion. The *Intermodal Surface Transportation Efficiency Act (ISTEA)* of 1991 included the *Intelligent Vehicle-Highway Systems Act*² (now referred to as Intelligent Transportation Systems or ITS) which established a national program to use advanced or state-of-the-art communications, electronics, and information-based technologies to improve the safety and efficiency of the Nation's surface transportation systems.

As part of the national ITS program, the Department of Transportation (DOT) is developing system architecture requirements, which detail a conceptual framework of how components interact and work together. Within the framework of an architecture, many different designs can be implemented. Using an analogy of the home stereo system, the architecture defines the functions of the various components -- receivers, compact disk players, etc. -- and specifies how they will be interconnected. The system architecture is critically important to ITS deployment because it serves as a precursor to standards and protocol development. Manufacturers, product developers, vendors, and entrepreneurs will be more encouraged to invest in ITS technology and product development knowing that their system or product meets national standard and protocol requirements. Consumers will be able to put together their own system design with products of various capabilities and options with confidence that they will work together.

The national system architecture for ITS is based on 29 user services. Several of these user services, including incident management, public travel security, emergency notification and personal security, and commercial vehicle operations (CVO) hazardous material (HAZMAT) incident response, require interaction with emergency response personnel and services. **Incident management** helps public and private organizations quickly identify incidents and implement a response to minimize their effects on traffic. **Public travel security** creates a secure environment for public transportation patrons and operators by monitoring that environment (e.g., transit stations, bus stops, parking lots) and generating alarms, either automatically or manually. **Emergency notification and personal security** has two aspects. The first is a call for distress initiated by the user, which may be 911 emergency-related or a non-emergency call such as a request for breakdown assistance. The second aspect is automatic collision notification which may include vehicle identification and location, condition of the vehicle, and the nature and severity of the collision. **CVO HAZMAT incident response** provides emergency personnel with information concerning the materials involved in addition to other relevant data.

The DOT has implemented ITS operational tests to evaluate applications of innovative technologies and facilitate the transition from the realm of research and development to full-scale deployment. Some operational tests incorporate wireless communications and geolocation technologies with the objective of developing methods for implementing the emergency response related user services. Several operational tests incorporate the use of

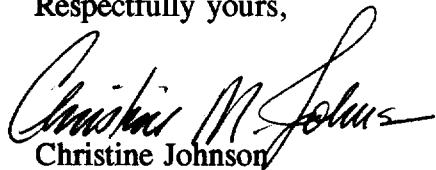
²23 U.S.C. § 307 note.

Global Positioning Satellite (GPS) receivers to provide vehicle location. An operational test in the Washington, D.C. area is evaluating cellular radio-based geolocation. Other technologies such as the Position Information Navigation Subsystem (PINS), which incorporates the combined use of reference stations and FM broadcast stations to determine vehicle location, are under development.

3. Specific Comments

Uniform access to fully enhanced 911 services over wireline and wireless communications with interoperability between systems would be greatly beneficial to implementing the ITS user services requiring interaction with emergency response personnel. 911 availability, improved grade of service for wireless communications, 911 priority, user location information, and re-ring/call back are desirable features for ITS users. Providing the PSAPs with call back number, handset subscribers name, call of service, priority of caller, vehicle location, and routing information for directing calls to the proper PSAP are information elements needed for ITS user services. In addition to information associated with the fully enhanced 911 features, ITS-based systems are expected to provide emergency response personnel with appropriate CVO HAZMAT information and automated collision notification data. Since ITS user services are expected to be available nationwide, fully enhanced 911 access over the public switched telephone network and existing commercial mobile radio services as well as future personal communications systems and satellite-based mobile voice and data services would be needed.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Christine M. Johnson", written in dark ink.

Christine Johnson
Director, Joint Program Office
for Intelligent Transportation
Systems